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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/800,147

03/11/2004

David F. Bocian

407T-302900US

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06/26/2006

QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

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ALAMEDA, CA 94501

EXAMINER

FLETCHER III, WILLIAM P

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,147

Applicant(s)

BOCIAN ET AL.

Examiner

William P. Fletcher III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-97 is/are pending in the application.
- 4a) Of the above claim(s) 51-97 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/13/04 & 5/8/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 1-50 in the reply filed on April 3, 2006, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 51-97 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 3, 2006.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on December 13, 2004, is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

4. The information disclosure statement (IDS) submitted on May 8, 2006, is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

5. The drawings were received on March 11, 2004. These drawings are objected to by the draftsman as detailed in the attached Form PTO-948.

Specification

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6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

7. Claims 1, 14, 27, and 40 are objected to because of the following informalities:

A. Claim 1 would read more clearly if amended as follows:

...contacting said surface with said redox-active molecules₁ where said contacting is under conditions that result in attachment of said redox-active molecules to said surface via said first reactive site or group₁ and attachment of redox-active molecules via the second reactive site or group₂ to the redox-active molecules attached to said surface₁ thereby forming a polymer attached to said surface where said polymers comprise at least two of said redox-active molecules.

B. Claim 27 would read more clearly is amended as follows:

...contacting said surface with said redox-active molecules₁ where said contacting is under conditions that result in the attachment of said redox-active molecules to the linker and/or to the redox-active molecule attached to the surface and the polymerization of the redox-active molecules₁ thereby forming polymers attached to said surface where said polymers comprise at least two of said redox-active molecules.

C. Claims 14 and 40 both recite: "wherein said redox-active molecule is a molecule found in Table 1." Where possible, claims are to be complete in themselves. Incorporation by reference to a specific figure or table is permitted only in exceptional circumstances where there is no practical way to define the invention in words and where it is more concise to incorporate by reference than duplicating a drawing or table into the claim. Incorporation by reference is a necessity doctrine, not for applicant's convenience.¹

D. Appropriate correction is required.

Claim Rejections - 35 USC § 112

¹ *Ex parte Fressola*, 27 USPQ2d 1608, 1609 (Bd. Pat. App. & Inter. 1993) (citations omitted)

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8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. **Claims 27-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

A. Independent claim 27 recites: "...where said contacting is under conditions that result in the attachment of said redox-active molecules to the linker and/or to the redox-active molecule attached to the surface and the polymerization of the redox-active molecules...." It is unclear whether the "and the polymerization of the redox-active molecules" clause is included as part of the "and/or" (i.e., is optional) or is in addition to the "and/or" (i.e., is required.).

B. Because a dependent claim necessarily incorporates all of the limitations of the independent claim(s) from which it depends, the metes and bounds of the subject matter of claims 27-50 is impossible to determine.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

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with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. **Claims 1-50 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 7,005,237 B2.** Although the conflicting claims are not identical, they are not patentably distinct from each other because the patented claims teach all of the limitations of the instant claims, with the exception that they do not recite "redox-active molecules." Yet, the '237 patent clearly identifies, as the charge storing molecules (CSM), the same redox-active molecules (porphyrins, etc.) disclosed and claimed in the instant application [7:16-9:34]. Consequently, it would have been obvious to one of ordinary skill in the art to utilize, as the CSM, the molecules specifically disclosed in the patent as suitable for this purpose.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

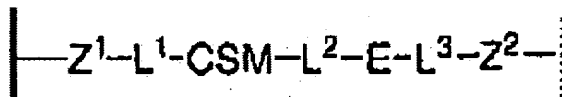
13. **Claims 1-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Lindsey (US 7,005,237 B2)**

The applied reference has a common inventor, Jonathan S. Lindsey, with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior

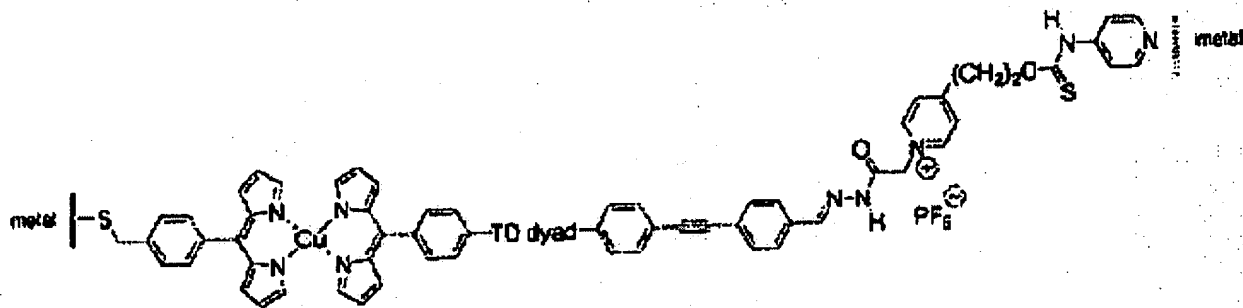
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art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

A. Lindsey clearly teaches all of applicant's claimed limitations at 5:30-16:22. Specifically, Lindsey's process results in the following structure:

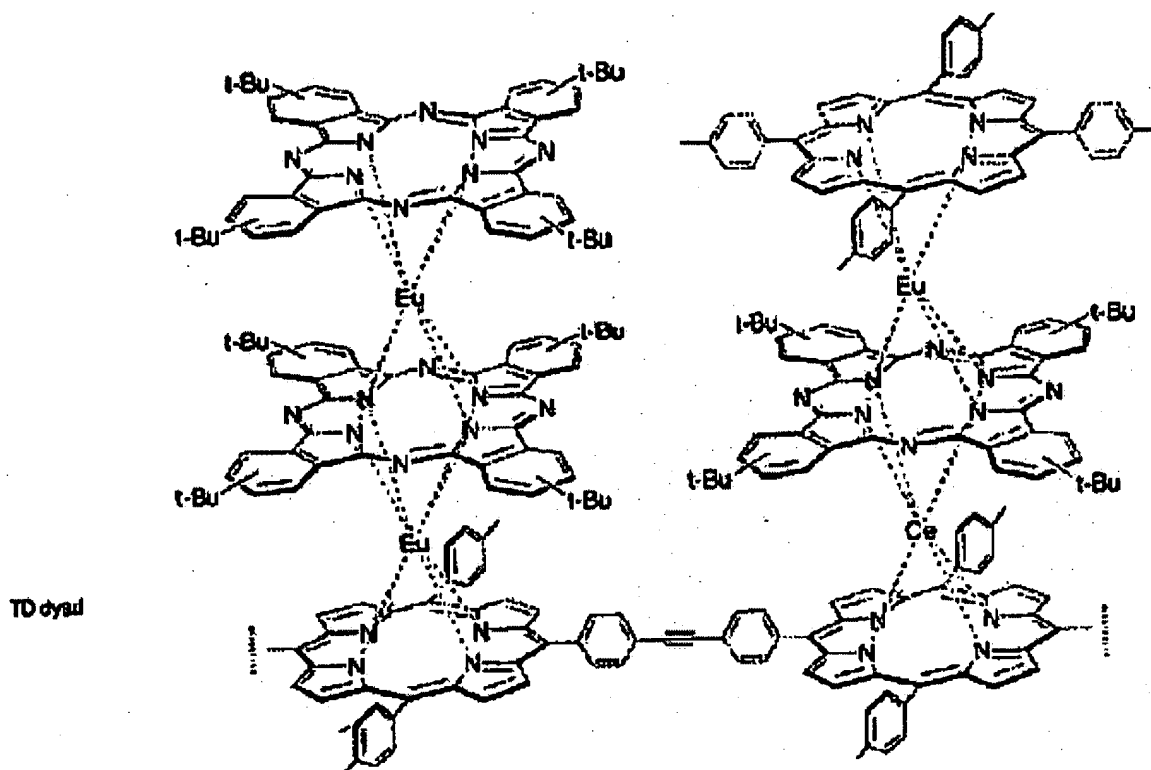


Here, CSM is a molecule "[t]ypically...composed of several redox-active units (e.g., porphyrins or ferrocenes)" [5:35-37]. Further, Lindsey teaches the following specific example of the above structure:

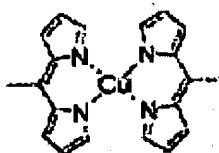


where **TD dyad** has the following structure:

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**Figure 5**

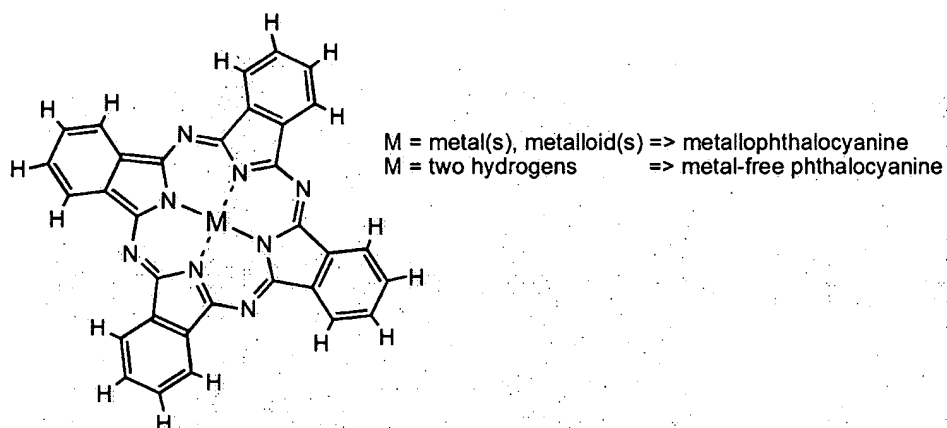
Applicant has defined a “redox-active molecule” as “a molecule capable of being oxidized or reduced by the application of a suitable voltage” [para. 0028 of spec.]. It is the examiner’s position that any of the molecules in the structure above is capable of being oxidized or reduced (i.e., the claims do not require that they actually be oxidized or reduced). In particular, the copper-coordinated porphyrinic component



is readily identifiable as another redox-active molecule. So Lindsey also anticipates applicant’s claimed limitation requiring “at least two...redox-active molecules.”

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B. Finally, with specific respect to claims 12, 13, 38, and 39, it is the examiner's position that the **TD dyad** structure, for example, satisfies applicant's claimed limitation requiring phthalocyanines, which are exemplified by the following structure²:



Conclusion

14. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an explicit citation (i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

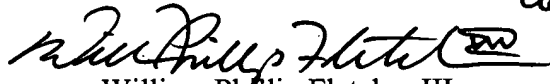
Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Tuesday through Saturday, 0700h to 1730h.

² <http://en.wikipedia.org/wiki/Phthalocyanine>

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William Phillip Fletcher III
Patent Examiner (FSA), USPTO
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06/22/2006

Alexandria, VA